Ballistic Missile Defense Organization

Information Technology Budget Estimates Fiscal Year 1997

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Ballistic Missile Defense Organization
Executive Summary
FY 1997 Budget Estimates

1. BMD PROGRAM MISSION

The mission of the Ballistic Missile Defense (BMD) program is to research, develop, and acquire systems and technologies which provide ballistic missile defense. The Ballistic Missile Defense Organization (BMDO) is established as a separate agency of the Department of Defense (DoD) under the direction, authority, and control of the Under Secretary of Defense for Acquisition and Technology (USDA&T).

The Information Technology (IT) initiatives undertaken as part of this program directly support the BMD mission. Individual Budget Exhibit 43 submissions are requested and received from each ballistic missile defense activity. These submissions provide detailed Information Technology (IT) resource requirements necessary to accomplish the BMD IT program in support of the overall BMD mission strategy.

2. MAJOR INITIATIVES THAT INFLUENCE THE INFORMATION TECHNOLOGY FY 1997 Budget Estimates

The 1997 POM/BES/BE guidance provided clearer definition of program elements that should be included in the Information Technology Exhibits. In accordance with the 1997 OSD budget justification materials guidance, BMD IT resources were reviewed and adjusted to accurately align IT and DoD/CIM Core DII functions. These adjustments help to ensure proper audit, execution and allocation of IT resources and demonstrate their contribution to the overall BMD mission. This submission reflects specific program changes that resulted in reporting base level communications, engineering, maintenance and process improvement initiatives. These changes occurred in the IT Exhibit 43 support services and services categories due to the reporting of communications related resources and outsourcing strategies. This IT submission reflects the transfer of the Joint National Test Facility (formerly Joint National Test Facility) mission and operations to BMDO from the USAF.

2.1 BMDO has no major Automated Information Systems. Initiatives that influence the Information Technology budget include the following core resources and capabilities required to support the BMD Program are as follows:

2.1.1 BMDO Headquarters operates an integrated program management system in support of the BMD mission and the operation of the BMDO. The Support and Programmatic Integrated Management System (SPIMS) capability provides comprehensive automated program management.

SPIMS modules provide access to planning, financial, program management, contract, and administrative data via on-line computer workstations furnishing printed reports and graphics.

SPIMS utilizes Commercial-Off-The-Shelf (COTS) products and Government-Off-The Shelf (GOTS) applications to optimize performance. SPIMS reporting applications and tools provide users with enhanced planning, expenditure tracking, analysis and reporting capabilities.

2.1.2 BMD IT Obsolescence and Infusion supports activities necessary to ensure that the BMD Information Technology Infrastructure continue to meet the mission requirements of the BMD program. Technology Infusion activities focus on modernizing existing Federal Information Processing (FIP) resources. This initiative addresses strategic IT modernization requirements at BMDO HQ, as well as the BMDO Executing Agents.

2.1.3 BMDO HQ Network and Systems Management supports the design, development and implementation of information systems at the BMD Headquarters facility, as well as coordination of network and systems policy across the BMD Executing Agents. Funded activities include network and systems policy, development and maintenance of IRM architecture plans. Also, the coordination of BMD-wide information resources management policies and procedures to integrate the exchange of data and analyses throughout the BMD user community. Major IM task support the acquisition, maintenance and operation of an effective information technology infrastructure to provide BMDO users enhanced management and oversight capabilities.

2.1.4 The BMDO Video Teleconferencing Center (VTC) is an interactive conferencing capability that unites the Conference Briefing Room to remote BMD-related locations. The VTC employs voice, video and communications technologies. The system is integrated with the Defense Commercial Telecommunications network and operates at T1 data rates. The VTC accommodates both classified and unclassified broadcast and integrates a variety of audio and video imagery system technologies. These technologies include projection systems, recording and playback systems, video distribution and routing systems, video input/output devices, and special purpose video/imagery software. The VTC provides a cost-effective alternative to travel, reducing costs across BMD mission.

2.1.5 The BMD Multi-Level Security activity supports the development and implementation of a BMD phased migration plan for a multi-level secure

environment. This multi-level security capability is being implemented to facilitate connectivity between BMDO HQ, other government agencies, our international allies and the commercial partners.

2.1.6 BMDO Headquarters base level computing supports the planning and acquisition of IT resources, telecommunications and office automation equipment. The program area also provides guidance, direction and policy administration (e.g. Continuous Acquisition Life Cycle Standards and Electronic Commerce) to optimize the contribution of IM/IT to mission operations.

2.1.7 BMDO Data Administration Program (DASP) outlines the policies, standards and procedures necessary to operate and maintain an effective data administration infrastructure. The DASP operates at a minimal level due to resource limitations. Current efforts support the review, analysis and standardization of data elements from various BMD technical projects with the goal of populating the DoD Defense Data Dictionary System (DDDS).

2.1.8 BMDO Joint National Test Facility (JNTF) provides a comprehensive simulation environment to support ballistic missile defense design, development, and follow-on operational test and evaluation activities. The JNTF provides US Space Command, the individual service space commands, and the various theater commanders-in-chief with real-time simulations to explore ballistic missile defense operational concepts and orders of battle. The JNTF supports BMD mission evolution from Theater Missile Defense to a more general support for theater commanders, using the full capabilities of space assets. The JNTF develops and validates models, simulation techniques and tools that are critical in determining requirements and assessing the performance capabilities of BMD systems. This cost effective modeling approach to research reduces the high costs of missile test programs while establishing future technology requirements. The application of Computational Fluid Dynamics (CFD) to modeling, replaces the higher costs associated with wind tunnel field tests.

2.2. United States Army Program Executive Office (PEO) Missile Defense (MD): The mission of the Army PEO MD is to conduct a coordinated development program in accordance with Department of Defense, BMDO, and Army guidance to ensure timely and cost effective development of Anti-Tactical Missile (ATM) weapons systems. The PEO MD mission supports the BMDO mission of defending against tactical and ballistic missiles. The Army PEO provides automated services for gathering, storing, sharing, and retrieving technical and management information to provide oversight of multiple research contracts and business needs.

2.3. United States Army Space and Strategic Defense Command (USASSDC) - Corporate Information Management System (CIMS). The USASSDC CIMS supports the financial, contractual, procurement, personnel, logistics, and administrative aspects of project management. CIMS focuses on the oversight of multiple research contracts and other critical business needs related to BMD research. CIMS provides budget and execution information for tracking financial information. CIMS interfaces with finance and accounting office systems without duplicating functions. CIMS provides the capability of facilitating BMD research by providing automated storage and retrieval of technical documents.

2.4 The USASSDC Advanced Research Center (ARC) is a modular, multiple experiment test bed sufficiently comprehensive to participate as a principal node of the National Test Bed. The ARC supports technology research and development requirements as well as conducting experimentation activities in support of BMDO.
Some 146 computer systems are operated and maintained, supporting approximately 1,000 users primarily under contract to USASSDC, performing software design, development and hardware/software modeling simulation verification for various BMD ground-based elements. From June 1993 to June 1995, more than 1840 demonstrations and experiments were conducted in support of reviews, meetings, and conferences at the ARC.

2.6. The USASSDC SC (SC) is a self contained, fully operational computer information center providing support to approximately 600 BMDO users and over 70 BMDO contractors/activities. The SC is a centralized resource for classified and unclassified supercomputer processing, parallel processing, data visualization, modeling and simulation, network communications, testbed support, software development and technical and administrative support services. As a networked tail of the USASSDC Advanced Research Center (ARC), the SC participates as a node of the National Test Bed. The SC operates and maintains over 20 major computers systems to support a multitude of BMDO development, test and implementation requirements. The SC also operates and maintains approximately 40 Macintosh/PCs/servers to support users technical, security and administration requirements. From June 1993 to June 1995, approximately 450 demonstrations, experiments, reviews, meetings, training classes and conferences were conducted at the SC to support a variety of BMDO activities. Both the ARC and the SC provide state-of-the-art computation, test beds, and engineering support for numerous Theater Missile Defense (TMD) and USASSDC science and technology project/programs. The ARC and the SC are connected via a very high bandwidth T-3 link that allows the centers to share resources while physically separate. The application of Computational Fluid Dynamics (CFD) models, simulations and technologies

enable programs such as Theater High Altitude Area Defense (THAD) to accurately and effectively test missiles and missile components without expensive wind tunnel field tests.

2.7 The Air Force (AF) BMD activities define, design, acquire and support the integration of information technology systems and database management for the Air Force Ballistic Missile Defense Program Office. AF BMD supports the architecture and continual operation of local and wide area networks. These operations facilitate interoffice and site communications between office automation systems. AF network and systems management operations support the design, acquisition and integration of information technology for the AF Ballistic Missile Defense Office. Included in these operations are IT strategic planning, process reengineering, network analysis, maintenance, and management. These functions integrate the client server databases, graphic user interface, maintenance and training processes.

2.8 The mission of the Navy Background Data Center is to assist in the evaluation of defense system feasibility, development and deployment in support of the BMD missions.

The IT program, managed by the Naval Research Laboratory, has two primary functions: 1) to conduct data archiving, management and database characterization activities in support of BMD research; and 2) to provide user support functions for researchers, including the design and development of hardware and software systems to store, catalog and distribute experiment data in support of the BMD program.

3. DEVIATIONS OF 15% OR MORE FROM THE FY 96 PRESIDENT'S BUDGET SUBMISSION

Submission	FY 95	FY 96	FY 97
1996 PBS	41,906	64,518	57,592
1997 PBS	52,931	62,770	69,017
Delta	11,025	-1,748	11,425
Percent	26%	-3%	20%

The single largest contributor to deviation, stemmed from a change in reporting at the Joint National Test Facility ($11.0M) in FY 95 and ($11.4M) in FY 97. This increase is attributable to changes in PMA 3352 to include 1) the inclusion of JNTF indirect costs previously not accounted for in the IT Exhibit 43; 2) communications costs in accordance with the revised 1997 PBS guidance and 3)

emergent Multi - Level - Security improvements funded in T4162, required to enhance BMD-wide connectivity, data sharing.

New changes in the 1997 PBS guidance enabled BMD to identify and clarify the consumption and reporting of IT resources. More specifically, these revisions had the effect of increasing the BMD IT dollars reported for base level computing and management staffs, communications, engineering, maintenance and facilities. BMDO is committed to continuous process improvement strategies to accurately identify and report IT resources.

Ballistic Missile Defense Organization
Report on Information Technology (IT) Resources
FY 1997 Budget Estimates
(Dollars in Thousands)

	FY 1995	FY 1996	FY 1997
1. Equipment			
A. Capital Purchases	3,961	4,461	6,501
B. Purchases/Leases	2,224	8,294	7,121
Subtotal	6,185	12,755	13,622
2. Software			
A. Capital Purchases	1,604	1,555	3,267
B. Purchases/Leases	1,150	1,018	1,273
Subtotal	2,754	2,573	4,540
3. Services			
A. Communications	4,180	4,296	4,302
B. Processing	0	0	0
C. Other	710	2,385	4,111
Subtotal	4,890	6,681	8,413
4. Support Services			
A. Software	4,402	4,775	4,883
B. Equipment Maintenance	8,110	7,379	7,648
C. Other	19,826	20,357	21,581
Subtotal	32,338	32,511	34,112
5. Supplies	641	643	578
6. Personnel (Compensation/Benefits)			
A. Software	200	200	200
B. Equipment Maintenance	0	0	0
C. Other	74	74	74
D. Communications	24	24	24
E. Other	1,653	2,137	2,140
Subtotal	1,951	2,435	2,438
7. Other (Non-FIP Resources)			
A. Capital Purchases	0	0	0
B. Other Current	703	772	787
Subtotal	703	772	787
8. Intra-Governmental Payments			
A. Software	95	21	21
B. Equipment Maintenance	52	78	98
C. Processing	13	9	8
D. Communications	2,468	3,370	3,429
E. Other	840	922	971
Subtotal	3,468	4,400	4,527
9. Intra-Governmental Collections			
A. Software	0	0	0
B. Equipment Maintenance	0	0	0
C. Processing	0	0	0
D. Communications	0	0	0
E. Other	0	0	0
Subtotal	0	0	0
NET IT RESOURCES	52,930	62,770	69,017
Workyears	28	33	33
Non-DBOF	28	33	33
DBOF	0	0	0

Ballistic Missile Defense Organization
Report on Information Technology (IT) Resources
FY 1997 Budget Estimates
(Dollars in Thousands)

Appropriation/Fund	FY 1995	FY 1996	FY 1997
0400 RDT&E, Def-Wide	52,930	62,770	69,017
Total By Appropriation:	52,930	62,770	69,017

NOTE 1: Military Personnel Cost in the DBOF is computed at the equivalent civilian rate as prescribed by the DBOF Guidance.

NOTE 2: FY 1995 estimates reflect a $50 thousand investment/expense threshold, FY 1996 reflects a $100 thousand investment/expense threshold as adjusted by Congress (Section 8065 in Public Law 104-61), and for FY 1997, appropriated funds will adhere to the centrally managed criteria in that the Department will budget for the purchase of noncentrally managed items (by definition installation/local level type items) in the O&M appropriation regardless of the unit cost of the item. DBOF will maintain the $100 thousand threshold for FY 1997 and beyond.

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Exhibit IT-1

Non-Major Systems/Initiatives

* The ARC and the SC are funded by PMA 3352 and are managed by the United States Army Space and Strategic Defense Command s (USASSDC) Computer Resources Division (CRD). Reporting ARC/SC activities together more accurately represent USASSDC's CRD management of and funding allocations for ARC/SC resources

** Formerly reported as the National Test Facility

DEPARTMENT OF DEFENSE

Ballistic Missile Defense Organization

Information Technology Resources by CIM Functional Area

FY 1997 Budget Estimates

(Dollars in Thousands)

	FY 1995	FY 1996	FY 1997
A. Core DII - Computing			
1. Major Systems/Initiatives			
2. Non-Major Systems/Initiatives			
3. All Other Core DII - Computing			
Development/Modernization	2,192	2,300	475
Current Services	3,077	2,969	3,061
Subtotal	5,269	5,269	3,536
Appropriation/Fund			
RDT&E, Def-Wide	5,269	5,269	3,536
4. Total Core DII - Computing			
Development/Modernization	2,192	2,300	475
Current Services	3,077	2,969	3,061
Subtotal	5,269	5,269	3,536
Appropriation/Fund			
RDT&E, Def-Wide	5,269	5,269	3,536
B. Core DII - Other			
1. Major Systems/Initiatives			
2 Non-Major Systems/Initiatives			
3. All Other Core DII - Other			
Development/Modernization	0	0	0
Current Services	784	1,259	1,259
Subtotal	784	1,259	1,259
Appropriation/Fund			
RDT&E, Def-Wide	784	1,259	1,259
4. Total Core DII - Other			
Development/Modernization	0	0	0
Current Services	784	1,259	1,259
Subtotal	784	1,259	1,259
Appropriation/Fund			
RDT&E, Def-Wide	784	1,259	1,259

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Ballistic Missile Defense Organization

Information Technology Resources by CIM Functional Area

FY 1997 Budget Estimates

(Dollars in Thousands)

	FY 1995	FY 1996	FY 1997
C. Core DII - Related Technical Activities			
1. Major Systems/Initiatives			
2. Non-Major Systems/Initiatives			
3. All Other Core DII - Related Technical Activities			
Development/Modernization	0	0	0
Current Services	290	827	853
Subtotal	290	827	853
Appropriation/Fund			
RDT&E, Def-Wide	290	827	853
4. Total Core DII - Related Technical Activities			
Development/Modernization	0	0	0
Current Services	290	827	853
Subtotal	290	827	853
Appropriation/Fund			
RDT&E, Def-Wide	290	827	853
D. Core DII - Value Added Services			
1. Major Systems/Initiatives			
2. Non-Major Systems/Initiatives			
3. All Other Core DII - Value Added Services			
Development/Modernization	4,363	8,570	16,852
Current Services	6,259	9,518	9,153
Subtotal	10,622	18,088	26,005
Appropriation/Fund			
RDT&E, Def-Wide	10,622	18,088	26,005
4. Total Core DII - Value Added Services			
Development/Modernization	4,363	8,570	16,852
Current Services	6,259	9,518	9,153
Subtotal	10,622	18,088	26,005
Appropriation/Fund			
RDT&E, Def-Wide	10,622	18,088	26,005

DEPARTMENT OF DEFENSE

Ballistic Missile Defense Organization

Information Technology Resources by CIM Functional Area

FY 1997 Budget Estimates

(Dollars in Thousands)

	FY 1995	FY 1996	FY 1997
Finance			
Major Systems/Initiatives			
Non-Major Systems/Initiatives			
All Other Finance			
Development/Modernization	390	354	456
Current Services	2,415	2,156	2,161
Subtotal	2,805	2,510	2,617
Appropriation/Fund			
RDT&E, Def-Wide	2,805	2,510	2,617
Total Finance			
Development/Modernization	390	354	456
Current Services	2,415	2,156	2,161
Subtotal	2,805	2,510	2,617
Appropriation/Fund			
RDT&E, Def-Wide	2,805	2,510	2,617
Logistics			
Major Systems/Initiatives			
Non-Major Systems/Initiatives			
All Other Logistics			
Development/Modernization	22	22	22
Current Services	259	254	254
Subtotal	281	276	276
Appropriation/Fund			
RDT&E, Def-Wide	281	276	276
Total Logistics			
Development/Modernization	22	22	22
Current Services	259	254	254
Subtotal	281	276	276
Appropriation/Fund			
RDT&E, Def-Wide	281	276	276

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Ballistic Missile Defense Organization
Information Technology Resources by CIM Functional Area
FY 1997 Budget Estimates
(Dollars in Thousands)

	FY 1995	FY 1996	FY 1997
G. Procurment/Contract Admin			
1. Major Systems/Initiatives			
2. Non-Major Systems/Initiatives			
3. All Other Procurment/Contract Admin			
Development/Modernization	135	132	132
Current Services	1,553	1,523	1,523
Subtotal	1,688	1,655	1,655
Appropriation/Fund			
RDT&E, Def-Wide	1,688	1,655	1,655
4. Total Procurment/Contract Admin			
Development/Modernization	135	132	132
Current Services	1,553	1,523	1,523
Subtotal	1,688	1,655	1,655
Appropriation/Fund			
RDT&E, Def-Wide	1,688	1,655	1,655
H. Science and Technology			
1. Major Systems/Initiatives			
2. Non-Major Systems/Initiatives			
BMDO HQ Civilian Personnel			
Development/Modernization	6,229	3,226	3,400
Current Services	11,802	12,048	11,517
Subtotal	18,031	15,274	14,917
Appropriation/Fund			
RDT&E, Def-Wide	18,031	15,274	14,917
Joint National Test Facility (JNTF)			
Development/Modernization	283	5,000	5,000
Current Services	11,517	11,000	11,300
Subtotal	11,800	16,000	16,300
Appropriation/Fund			
RDT&E, Def-Wide	11,800	16,000	16,300
3. All Other Science and Technology			
Development/Modernization	227	403	400
Current Services	1,133	1,209	1,199
Subtotal	1,360	1,612	1,599
Appropriation/Fund			
RDT&E, Def-Wide	1,360	1,612	1,599
4. Total Science and Technology			
Development/Modernization	6,739	8,629	8,800
Current Services	24,452	24,257	24,016
Subtotal	31,191	32,886	32,816
Appropriation/Fund			
RDT&E, Def-Wide	31,191	32,886	32,816

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Ballistic Missile Defense Organization

Information Technology Resources by CIM Functional Area

FY 1997 Budget Estimates

(Dollars in Thousands)

	FY 1995	FY 1996	FY 1997
CIM Grand Total			
Development/Modernization	13,841	20,007	26,737
RDT&E, Def-Wide	13,841	20,007	26,737
Current Services	39,089	42,763	42,280
RDT&E, Def-Wide	**39,089**	**42,763**	**42,280**
Total	**52,930**	**62,770**	**69,017**
Appropriation/Fund			
RDT&E, Def-Wide	**52,930**	**62,770**	**69,017**

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Exhibit IT-2

United States Army Space and Strategic Defense Command
Advanced Research Center and Simulation Center
(USASSDC - ARC/SC)
Descriptive Summary IT-2
FY 1997 Budget Estimates

A. AIS Title and Number: US Army Space & Strategic Defense Command Advance Research Center and Simulation Center (USASSDC ARC/SC); Category 4.

B. CIM Function Area: Science & Technology

C. **Life Cycle Cost and Program Cost:**

1. Then year (Inflated) dollars

Life-cycle cost (Current Contract): $ N/A * (in millions of dollars).
Program cost (Annual Funding requirement): $ N/A * (in millions of dollars).

2. Current base year (FY96) dollars

Life-cycle cost (Current Contract): $ N/A * (in millions of dollars).
Program cost (Annual Funding Requirement): $ N/A * (in millions of dollars).

3. **Sunk Cost (Actual Contract Expenditures To Date): $144.0 M.**

4 **Cost To Complete: (in millions of dollars).**

* **The ARC/SC is required to submit this exhibit to satisfy the reporting requirement to report all expenditures greater that $10M in the Exhibit IT-2. The reported expenditures support the operation and maintenance of the IT Infrastructure and are not system acquisition cost as defined in the DoD Financial Management Regulation Volume 2b, Chapter 18.**

United States Army Space and Strategic Defense Command
Advanced Research Center and Simulation Center
USASSDC ARC/SC
Descriptive Summary IT-2
FY 1997 Budget Estimates

D. Cross Reference to Justification Books:

1. Budget Activity: Presidents Budget Submission (PBS) - The table below shows ARC and SC separate funding/cost information.

(Millions of Dollars)

Center/Year	FY 95	FY 96	FY 97
ARC	$8.867	$8.480	$10.432
SC	$2.933	$7.520	$5.868
TOTAL	$11.800	$16.000	$16.300

2. Line Item: RDT&E

3. Line Item Title: R-1

4. Line Item Page Number: (Reference 96 POM)

5. Appropriation/Fund: 0400/PMA 3352

6. Budget Activity/Business Area: Science & Technology/TMD & NMD

E. System Description:

The United States Army Space and Strategic Defense Command (USASSDC) Advanced Research Center (ARC) and Simulation Center (SC) are managed by the USASSDC's Computer Resources Division under the Systems Directorate. The ARC and the SC are funded by PMA 3352 and are managed by the United States Army Space and Strategic Defense Command s (USASSDC) Computer Resources Division (CRD). Reporting ARC/SC activities together more accurately represent USASSDC's CRD management of and funding allocations for ARC/SC resources. The ARC/SC requires $16.000 million for FY96 and $16.300 million for FY97 to operate the centers and upgrade current resources. To fully support BMDO requirements, ARC/SC requires substantial upgrade funds for FY 96 and FY 97. Both the ARC and the SC provide state-of-the-art computation, test bed, and engineering support for numerous BMDO, NMD, TMD and USASSDC projects/programs. The ARC and the SC are connected via a very high bandwidth T-3 link that allow the centers to be configured as a single computational resource.

The ARC/SC are self contained fully operational computational resources that provides over 1200 BMDO users and 70 Ballistic Missile Defense Organization (BMDO) contractors/activities. The ARC/SC is a centralized resource for classified and unclassified supercomputer processing, parallel processing, data visualization, modeling and simulation, networked communications, test bed support, software development and technical and administrative support services. The USASSDC ARC/SC are reconfigurable, multiple experiment test beds sufficiently comprehensive

to participate as a principal node of the National Test Bed (NTB) and to support the technology research and development needs as well as experimentation activities within the Ballistic Missile Defense Organization (BMDO). Some 160 computer systems are operated and maintained, supporting users primarily under contract to USASSDC, performing software design, development and hardware/software modeling, simulation and verification for various BMD ground-based elements.

From June 1993 to June 1995, more than 2170 demonstrations and experiments were conducted in support of reviews, meetings, and conferences at the ARC/SC.

F. Program accomplishments and Plans

1. FY 1995 Accomplishments:

   A. Life-cycle Management Milestones: Completed Milestones 0 - IV

   B. Life-cycle Approval Authority: USASSDC CRD

   C. Current Life-cycle Phase: IV, Operations & Support

   D. Other Significant Program Accomplishments and their Completion Dates: None

2. FY 1996 Planned Program: Provided full-range computational support for over 70 different DoD projects (i.e. THAAD, GBR, PAC-3, ARROW, ACES, EADSIM, etc.). Upgrade computation and communications resources and continue to provide full-range computational support for DoD projects/programs.

3. FY 1997 Planned Program: Upgrade visualization hardware and software, supercomputing tools and technologies needed to support Computational Fluid Dynamics research (CFD). CFD is critical to modeling and simulation activities that support the ARROW, CORPS SAM/MEAD, PATRIOT/PAC-3 and THAAD projects. This technology is needed to enable more effective simulation, modeling, evaluation, correct design defects in missiles/launchers and isolate test flight anomalies.

G. Contract Information:

1. Prime Contractors: COLSA Corporation, Huntsville, AL - Facilities Management/Operations.

2. Type of Government Obligation: Fixed Price

3. Length of Contract: ARC (9 Years); SC (5 Years)

4. When Procurement Authority Obtained From GSA: Current contract awarded in 1989 (ARC); 1991 (SC).

5. Contract Performance: On Schedule - Below Cost.

6. Other Significant Contract Information: ARC/SC is an on-going government computational, engineering and test bed support service for BMDO, TMD, NMD and USASSDC programs/projects.

H. Comparison with FY 1995 Description Summary:

This is the first year that the ARC/SC reported an Exhibit 43.

BMDO JOINT NATIONAL TEST FACILITY (JNTF)
Exhibit 43 (IT-2)
Descriptive Summary
FY 1997 Budget Estimates

A. AIS Title and Number: JNTF Research and Development Contract, F05604-95-D-9001 and JNTF Operations & Maintenance Contract, F05604-95-C-9001.

B. CIM Function Area: Science & Technology

C. Life Cycle Cost and Program Cost:

1. **Then year (Inflated) dollars**

Life-cycle cost (Current Contract*): $ 821.0 M.
Program cost (Annual Funding requirement): $23.0 M.

2. **Current base year (FY96) dollars**

Life-cycle cost (Current Contract *): $ 730.0 M.
Program cost (Annual Funding Requirement*): $ 15.0 M.

3. **Sunk Cost (Actual Contract Expenditures To Date): $565.0 M.**

4 **Cost To Complete (Then Year Current Contract (item 1) - $821.0 M - $565.0 M = $253.0 M.**

United States Army Space and Strategic Defense Command
Joint National Test Facility
Descriptive Summary
FY 1997 OSD/OMB Submission

D. Cross Reference to Justification Books:

1. Budget Activity: Presidents Budget Submission (PBS) - The table below shows JNTF cost information in PMAs T4162 and 3352 all tasks.

(Millions of Dollars)

Elements/Year	FY 95	FY 96	FY 97
PMA 3352/4162	$6.781	$6.781	$6.781
PMA 3352/4162	$11.250	$8.493	$8.136
TOTAL	$18.031	$15.274	$14.917

2. Line Item: RDT&E.
3. Line Item Title: R- 1.
4. Line Item Page Number: (Reference 96 POM).
5. Appropriation/Fund: 0400/PMA T4162 and 3352 all tasks.
6. Budget Activity/Business Area: Science & Technology/TMD & NMD

E. System Description:

The JNTF provides a comprehensive a comprehensive simulation environment capable of supporting ballistic missile design, development, and follow-on OT&E. Provides US Space Command, the individual Service space commands and various theater Commanders-in-Chief with real-time simulation to explore Ballistic Missile Defense (BMD) operational concepts/order of battle. Support the mission environment evolution from Theater Missile Defense (TMD) to a more general support for theater commanders (warfighters), using the full capabilities of space assets.

JNTF computational resources are employed on both classified and unclassified network and stand-alone system activities. The classified systems not only serve the many classified programs within the JNTF; but are also available to server other BMDO programs via an existing wide area network (WAN). The unclassified network is separate and is mainly used for administrative and program management functions. The JNTF IT system supports intensive batch-processed simulators, analysis simulators, analysis support tools and real-time, interactive, distributed wargaming. The JNTF is also a subscriber to the Defense Interactive Simulation and the Warbreaker Networks.

The JNTF contains a fully operational supercomputing resource environment that provides over 8 BMDO projects, 25 Ballistic Missile Defense Organizations (BMDO) and 20 other DoD organizations and contractors/activities. The JNTF is a centralized resource for classified and unclassified supercomputer processing, parallel processing, data visualization, modeling and simulation and real-time interactive distributed wargaming.

The systems also include the WAN and a local Area Network (LAN) communications equipment, computer terminal (local and remote) equipment and over 1,200 hosted software products.

F. Program accomplishments and Plans

1. **FY 1996 Accomplishments: Added communication upgrades and increased connectivity to the JNTF from external nodes. Continued a multi-level security development program.**

2. **FY 1997 Planned Program: Current Budget figures for FY 97 are designed to continue operations and maintenance of our infrastructure but, only provide for the continued modernization of the JNTF's productivity tools. Further modernization of the supercomputer resources is necessary to support the JNTF mission with BMDO and optimize operational effectiveness.**

3. **Problem Area : Current Cray 2 technology existing is no longer supported (maintenance, repairs, upgrades) by Cray Corporation effective 1/1/96.**

G. Contract Information:

1. **Prime Contractors: The National Test Bed Integration Contract (NTBIC), F19628-88-C-0012, awarded to Martin Marietta Corporation, January 1988 was completed February 1995. This contract was rebaselined several times and within budget. Contract provided for development of the national Test Bed/Facility, a task considerably beyond the Information Technology deliverables within this contract. Selection of the two follow on contractors was completed in the first quarter FY95. The NTF Research and Development Contract, F05604-95-D-9001, commenced 1 February 1995. The NTF Operations and Maintenance Contract, F05604-95-C-9001, commenced 1 February 1995.**

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H. Comparison with FY 1995 Description Summary:

The increase is attributable to increases in PMA 3352 to include 1) the inclusion of JNTF indirect costs previously not accounted for in the IT Exhibit 43; 2) communications costs in accordance with the revised 1997 PBS guidance and 3) emergent Multi - Level - Security improvements funded in T4162, required to enhance BMD-wide connectivity, data sharing.